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What is claimed is:

1. A method of searching for a predefined code in a bit stream, the method comprising:

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initiating a first search for correlation of said bit stream with a reference code applied to said bit stream at a first plurality of different times according to a first resolution to produce a first set of correlation values and associated times;

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initiating a second search for correlation of said bit stream with said reference code applied to said bit stream at a second plurality of different times, such that said reference code is applied to said bit stream at times other than times of said first plurality, to produce a second set of correlation values and associated times, said reference code being offset in time from a maximal correlation value of said first set; and

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selecting out of said first and said second sets a maximal correlation value for use in calculating a strength of said predefined code in said bit stream.

2. A computer readable medium for providing codes for directing a processor circuit to search for a predefined code in a bit stream by:

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initiating a first search for correlation of said bit stream with a reference code applied to said bit stream at a plurality of different times according to a first resolution to produce a first set of correlation values and associated times;

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initiating a second search for correlation of said bit stream with said reference code applied to said bit stream at a second

plurality of different times to produce a second set of correlation values and associated times, said reference code being offset in time from a maximal correlation value of said first set such that said reference code is applied to said bit stream at times other than times of said first plurality; and

selecting out of said first and said second sets a maximal correlation value for use in calculating a strength of said predefined code in said bit stream.

3. A signal encoded with computer readable instructions for directing a processor circuit to search for a predefined code in a bit stream, said signal comprising:

a first code segment for directing said processor circuit to initiate a first search for correlation of said bit stream with a reference code applied to said bit stream at a plurality of different times according to a first resolution to produce a first set of correlation values and associated times;

a second code segment for directing said processor circuit to initiate a second search for correlation of said bit stream with said reference code applied to said bit stream at a second plurality of different times to produce a second set of correlation values and associated times, said reference code being offset in time from a maximal correlation value of said first set such that said reference code is applied to said bit stream at times other than times of said first plurality; and

selecting out of said first and said second sets a maximal correlation value for use in calculating a strength of said predefined code in said bit stream.

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4. An apparatus for searching for a predefined code in a bit stream, the apparatus comprising:

5 means for initiating a first search for correlation of said bit stream with a reference code applied to said bit stream at a plurality of different times according to a first resolution to produce a first set of correlation values and associated times;

10 means for a second search for correlation of said bit stream with said reference code applied to said bit stream at a second plurality of different times to produce a second set of correlation values and associated times, said reference code being offset in time from a maximal correlation value of said first set such that
15 said reference code is applied to said bit stream at times other than times of said first plurality; and

20 means for selecting out of said first and said second sets a maximal correlation value for use in calculating a strength of said predefined code in said bit stream.

5. An apparatus for searching for a predefined code in a bit stream, the apparatus comprising:

25 a searcher for searching for correlation of said bit stream with a reference code applied to said bit stream at a plurality of different times according to a first resolution to produce a set of correlation values and associated times; and

30 a searcher controller operable to initiate a first search for correlation of said bit stream to produce a first set of correlation values and associated times and operable to initiate a second

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search for correlation of said bit stream with said reference code applied to said bit stream at a second plurality of different times to produce a second set of correlation values and associated times, said reference code being offset in time from a maximal correlation value of said first set such that said reference code is applied to said bit stream at times other than times of said first plurality, said first and second sets of correlation values being operable to be used for determining a measure of the strength of said predefined code in said bit stream.

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6. The apparatus of claim 5 wherein said controller is operable to reference times associated with correlation values in said first set and said second set to a common time.

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7. The apparatus of claim 6 wherein said controller is operable to select, out of said first and said second sets, a maximal correlation value for use in calculating said strength of said predefined code in said bit stream.

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8. The apparatus of claim 5 wherein said controller causes said second search to be initiated when said maximal correlation value of said first set exceeds a threshold value.

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9. The apparatus of claim 8 wherein said searcher is programmable to selectively initiate the second search.

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10. The apparatus of claim 5 wherein said controller is operable to limit said first and second sets of correlation values to a pre-defined number of correlation values.

11. The apparatus of claim 5 wherein said searcher is operable to produce said correlation result within a search window, over a dwell time, at a

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resolution and at a window start time offset relative to a timing signal, said start time offset being a fraction of said chip resolution.

5 12. The apparatus of claim 11 wherein said controller is operable to supply search window, dwell time, resolution, and start time offset variables to said searcher to define parameters of said first and second searches.

10 13. The apparatus of claim 12 wherein said controller is operable to supply a start time offset variable specifying a start time offset at a multiple of one-half of said resolution relative to said maximal correlation value.

15 14. The apparatus of claim 13 wherein said start time is $-5/4$ of a bit time of said reference code.

20 15. The apparatus of claim 5 wherein said controller is operable to eliminate from said first and/or second sets of correlation values, correlation values which are less than an adjacent correlation values and nearer in time than a defined period.

25 16. The apparatus of claim 5 wherein said controller comprises a digital signal processor.

30 17. The apparatus of claim 5 wherein said searcher is implemented in an application specific integrated circuit.

35 18. An apparatus for searching for a predefined code in a bit stream, the apparatus comprising:

an integrated circuit configured to search for correlation of said bit stream with a reference code applied to said bit stream at a plurality of different times according to a first resolution to produce a set of correlation values and associated times; and

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5 a processor circuit in communication with said integrated circuit
and configured to control said integrated circuit to initiate a first
search for correlation of said bit stream to produce a first set of
correlation values and associated times and operable to initiate
a second search for correlation of said bit stream with said
reference code applied to said bit stream at a second plurality of
different times to produce a second set of correlation values and
associated times, said reference code being offset in time from a
10 maximal correlation value of said first set such that said
reference code is applied to said bit stream at times other than
times of said first plurality, to produce a combined set correlation
values operable to be used for determining a measure of the
strength of said predefined code in said bit stream.

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19. A system comprising the apparatus of claim 18 and further comprising
a baseband down converter for demodulating a quadrature encoded
input signal to produce I and Q bit streams, said searcher including a
correlator for correlating said reference code with said I and Q bit
20 streams.
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20. A system comprising the system of claim 19 and further comprising a
receiver for receiving quadrature encoded pilot signals in a direct
sequence spread spectrum (DS-SS) system, said processor circuit
being operable to use said combined set of correlation values to
25 calculate the strength of a received pilot signal.